

**Alignment Project Committee Meeting**  
**Thursday, October 6, 2005**  
**1:00 p.m.**  
**Meeting Minutes**

**P-20 Council Members Present:** Dr. David Curd, Bob Hagen, Dr. Matt Diethelm, Bill Estes, Jr., Kristen Rex, Dean Phillips, Dr. Doug Olesen, Cathy McKee, and Dr. Jim Zaharis

**Others:** Dr. Mary Vanis, Chuck Kurauch, Lisa Krueger

**Staff:** Debra Raeder, Darcy Renfro, Becky Hill

Debra Raeder, Executive Director of the P-20 Council, welcomed everyone to the meeting and indicated that Cindy Rudrud would be the Chair of this committee. Cindy is out of state on business, however, and unable to make this meeting. Debra then invited those present to introduce themselves.

Debra then introduced Steve Bella, Project Manager for the Alignment Project being conducted by PublicWorks. Steve presented an updated on the high school alignment project regarding analysis of demand occupations and targeted industries. Steve Bella explained to the Committee the process PublicWorks is using to identify the education attainment levels and work skill levels needed in high-growth high-wage occupations for Arizona in the five key industries: Construction; Bioscience; Tourism and Travel; Transportation and Technology.

Steve outlined the data sources used in the analysis, which included a brief overview of ONet, CareerNet and Workkeys. After describing the process, Steve presented the education and skill level findings made by PublicWorks.

The first set of findings included the level of preparation needed in five job zones identified through the ONet system. Specifically, the majority of these occupational education and skill levels fall into two different job zones. One job zone requires training and vocational skills or an associate's degree with previous work related skills. The other job zone requires four year bachelor's degrees with a minimum of two to four years of work related skill knowledge or experience. The conclusion that can be made is that four years after high school graduation, a student will need either two years of post secondary education and two years of work related experience or four years of college with some work related experience to obtain a high-wage, high-demand job. Simply put, going straight from high school to college will be inadequate: students need to also demonstrate the work experience and skills that employers are seeking.

Steve then described the various educational attainment levels that are needed for high wage high demand occupations by presenting a breakdown of education requirements into 11 different categories. His findings included that 40% of those high wage high demand occupations will require a bachelor's degree or higher. Another 30% require

some post-secondary education with either an associate degree or other vocational training or direct work experience. The remaining 30% will require significant on the job training. Less than 1% of the high wage high demand jobs can be obtained with a high school diploma and minimum job training.

Steve then described the work skills needed for these high wage high demand occupations by providing analysis of the different 10 work skills needed according to the WorkKeys assessment system. The 10 skills included applied mathematics, applied technology, business writing, listening, locating information, observation, readiness, reading for information, teamwork, and writing. Applied mathematics, locating information and reading for information according to ACT are the three most important skills of the 10 skill sets. The WorkKeys systems identifies level of skill needed on a scale of 1 to 7, with a level 3 representing the lowest skill level needed for basically any occupation and 7 being the highest skill level needed. The majority of the high wage high demand occupations identified in Arizona require a level 4 in applied math; a level 4 in location information; and a level 5 for reading for information. Steve provided a handout that included a breakdown of the specific skills needed by each level.

Steve and the Committee dialogued about issues that were being revealed by the project. A concern of the Committee was that the Bioscience Industry, by title, did not indicate the need for health care workers in Arizona. There was also concern that an effort be made to have standards that are really college ready standards and an assessment system that can qualify that a high school graduate has these college ready skills when they graduate. There was consensus that the current AIMS test does not meet this requirement. Some individuals on the Committee noted interest in looking at organizations such as Achieve, Inc., and ACT as guides to how well Arizona's high school standards measure up. There was also consensus that the two credits of mathematics now required to graduate was insufficient in having a high school graduate ready for college. There was also discussion if these issues are unique to Arizona, as well as an emphasis on the fact that our students are competing in a global economy.

Dr. Mary Vanis then presented an update on the work being done by Maricopa Community Colleges, in partnership with Salt River Project, the Arizona Department of Commerce, and other key stakeholders in conducting a manufacturing workforce strategy, as well as an update on the Bioscience Workforce Strategy. The Manufacturing study, referred to as the Greater Phoenix Region Economic Development Strategy, includes a focus on the attraction, expansion and retention of high skill and high wage jobs with priority industries being the next generation electronics, aerospace, biotech, software and I.T., and advanced business and financial services.

The study will define a better focus on areas of growth or decline; potential role of outsourcing and off-shoring in their future plans; plans for future process and product technologies; future make-up of employees and required skill sets; and anticipated job training needs. The work plan includes an inventory and assessment of existing manufacturing programs and plans, as well as competitive positioning and benchmarking. This work is being done through industry data collection tools such as internet-based

surveys; targeted interviews; skills assessments; and focus groups. To date the study has ascertained that the majority of surveyed manufacturers require at least an Associates Degree for the technician level employees. The project will be completed in December with the release of the full report in January 2006.

Darcy then updated the Committee on the Tourism and Travel Study, which is scheduled to be completed in December 2005. Darcy also talked briefly on the Construction study. The Construction study examined the industry and its occupational needs based on existing data; surveys to construction trade firms to provide insight into the hiring practices of construction firms, their commitment to apprenticeships and other forms of training, and the views of firm owners about the challenges that the industry faces; and identified the training capacity to address those needs as well as to reveal the gaps in the system. A copy of the Construction Study will be provided to the Committee.

Steve Bella then updated the Committee on the e-surveys being drafted for high school and college faculty. Discussion followed on the value of the survey process as well as concern that if a survey is done for high school and college faculties then a survey definitely needed to be conducted with the business community. Steve indicated that it was anticipated there would be an employer survey but that the questions had not been flushed out yet. The Committee expressed concern that the results of any surveys be reported simultaneously. Input was also provided that a question should be included regarding whether Arizona high school graduates have the skills and knowledge to compete globally.

The Committee agreed that the Project was addressing the right issues and asking the right questions to determine high school alignment in Arizona and the importance of continuing the alignment into the community college and university arenas.

Next steps for PublicWorks is to identify the critical occupations within each of the five industries; develop a profile for each of these occupations and the skills and education levels needed; validate this information with Arizona employers within these industries; and use this information to pinpoint the alignment needed at the high school level.

Meeting adjourned at 3:00 p.m.